Growing up, I always thought film would last forever. Somehow one never thought that these images that seemed so much larger than life on a big screen and evoked such powerful emotions, actually had such a fragile existence. As a filmmaker, one is so engrossed in the craft of cinema that one tends to forget how ephemeral the lives of our creations can be if they are not preserved.

Shivendra Singh Dungarpur

The Indian filmmaker and producer Shivendra Singh Dungarpur created the Film Heritage Foundation in January 2014. A non-profit organisation dedicated to supporting the conservation, preservation, and restoration of the Indian film heritage, as well as developing educational programmes, the Foundation became an associate member of FIAF at the 2015 Congress in Canberra. In February 2015, the Foundation organised the first-ever Film Preservation and Restoration School in India. Its collaborators were all organisations involved, in one way or another, in saving the Indian film heritage: the Cineteca di Bologna, L’Immagine Ritrovata, and The Film Foundation – World Cinema Project. FIAF and the National Film Archive of India both gave their support to the venture. Films Division (a structure created in 1948 by the Indian Government) hosted the seven-day school in its facilities in Mumbai, one of the largest film production centres in the world.

The course was divided into several sections: a module on Film Preservation prepared and presented by the FIAF Technical Commission, lectures and panels by international experts on film archiving and restoration, practical classes conducted by the staff of L’Immagine Ritrovata, and screenings of restored classic films. As in earlier FIAF Restoration Schools, the students were given a pre-school theoretical grounding in film technology and restoration by means of an online training facility.

The course was attended by 53 students (chosen from 180 applicants), most of them from different parts of India, with three from Sri Lanka, and one from Nepal. The participants were selected according to their professional experience and academic training, covering a wide range of film-related activities. Two of the students were enabled to attend the school through FIAF grants.

---

TECHNICAL TRAINING FOR FILM ARCHIVES
BY FIAF’S TECHNICAL COMMISSION

Each day began with a training module devised by David Walsh (Head of the FIAF Technical Commission) and John Reed (formerly Preservation Officer at the National Screen and Sound Archive of Wales), with additional material by the authors. These sessions took the form of fully-illustrated lectures on aspects of technological history and archival procedures, and were attended by all the students. In contrast, the practical classes were designed for smaller groups. There was an intriguing and productive overlap between the two strands, allowing for useful repetition and extension of subjects. For example, students were able to see in the practical sessions how digital grading could achieve results corresponding to those available through the print production methods demonstrated in one of the lectures.

The two initial sessions were devoted to the history of film technology. In order to provide a good historical perspective, the subject was treated both thematically and narratively, and ranged over cinema pre-history, film as a medium and its photographic properties, colour, and sound. Film formats were introduced and explained as a prelude to the practical class in film inspection. Recommended preservation procedures and policies (storage conditions and collections management by type of film format and physical material) were outlined, alongside an explanation of the preservation approach to video – digitisation – compared to long-term storage of film originals. These sessions concluded with a survey of film production routes – picture and sound editing, processing, printing, and grading.

The final pair of modules concentrated on digitisation and digital preservation. Considerable time was devoted to exploring the practicalities of digitisation, from the principles of quantisation to the selection of appropriate film elements to be digitised. The differing paths of sound and picture digitisation were both covered, as was the eventual synchronisation of the two parts. There was also an exploration of the different types of scanner, dealing with various methods of film transport, illumination, and other capabilities, along with the criteria for selecting film sources appropriate to each particular type. The practical classes allowed for more detailed investigation of specific technologies, while the technical commission modules concentrated on the rationale for digitisation.

As the products of digitisation require preservation as data, this complex topic was examined from the angles of long-term storage and migration, access to digital collections, and digital item management.

LECTURES AND PANEL DISCUSSIONS BY EXPERTS

Interspersed between the FIAF training and the practical classes was an array of presentations by speakers from several countries. These presentations were designed to give insight into the wide range of film preservation work being carried out in different contexts such as studio libraries and projects concentrating on individual filmmakers or national film heritage, and included panel discussions on issues specific to the situations in India and elsewhere in Asia. Throughout, the presentations were an opportunity for students to see how the tenets of preservation inform a range of practical approaches.

Projects to restore and, equally important, re-present the work of key filmmakers were exemplified by the Cineteca di Bologna’s Chaplin project and the BFI’s Silent Hitchcock project. Maciej Molewski presented a Polish initiative, which involved the original filmmakers, to restore key national works. Andrea Kalas’s presentation on the Paramount Pictures programme was an example of large-scale, strategic preservation. The Criterion Collection’s ongoing restoration of the Apu trilogy, an incredible tale in itself, included a significant description of film sound restoration. Towards the end of the school, the lectures and panels focused on preservation in Taiwan and India. The former was assessed by Professor Ray Jiing whose presentation combined many of the topics covered during the school in relation to a national cinema. An energetic panel discussion on the challenges of preserving Indian cinema re-emphasised how much all preservation plans need to be grounded in a specific environmental context.
PRACTICAL CLASSES BY L’IMMAGINE RITROVATA

The practical classes were a key part of the curriculum, not only in terms of importance but also of time since they consisted of ten sessions, each of two hours. The tutors were staff from L’Immagine Ritrovata which, as had been the case for the 2013 Summer School at the Museum of Singapore, sent about ten people to Mumbai (along with a good deal of the equipment they would need for their classes). The students were divided into seven groups according to their knowledge and skills, in order that each class could be pitched at a level best suited to its participants.

Two classes focused on film as a physical object. Having access to film elements provided by the National Film Archive of India, the students were able to gain hands-on experience in Film Identification and analysis, as well as in Film Repair and preparation. This was followed by Film Scan and digitisation, Film Comparing of several elements, together with non-film documents, a crucial step in establishing a restoration workflow. Three sessions were devoted to Digital Restoration, which included information on the capabilities of different software. Colour Correction concerned not only grading itself, but also emphasised the importance of the original look of a film. Sound Restoration, the process of sound transfer and restoration, was followed by Film Mastering, synchronisation of image and sound, and encoding and output formats.

There was also a masterclass which took the students through a complete, step-by-step restoration workflow, as well as giving them an historical and technical introduction to sound technology.

The students were very appreciative of the fact that the sessions offered them realistic and practical approaches to the different activities. In parallel, the way these classes were structured enabled the teachers to get to know their students better, and to understand the reality and requirements of their particular local situations.

SCREENINGS OF RESTORED FILMS

To complete the training, every evening (and one morning), screenings were organised at Mumbai’s iconic Liberty Cinema, built in the

The films were all introduced by people who had worked on the restorations and often followed a related lecture earlier in the day. This enabled the students to watch the films knowing the restoration context and the particular problems involved in each project. Because of the diversity of the programmes, it was possible to get an idea of several different approaches and case studies. The screenings were also open to the general public who had the rare opportunity to watch a variety of films as well as to hear the specialist introductions.

As a complement to the Film Preservation and Restoration School India, the Film Heritage Foundation has published a book edited by Rajesh Devraj, *From Darkness into Light: Perspectives on Film Preservation and Restoration*, a compilation of articles by archivists and other experts from several different countries.²

For further information see <http://film-heritagefoundation.co.in/film-preservation-restoration-school-india-2015/>.

---

² Reviewed p.116 in this issue.
Indian film star Amitabh Bachchan addresses the students of the Film Preservation and Restoration School India.